

Title (en)
PROCESSES FOR PRODUCING SILICON CARBIDE PARTICLES AND SINTER

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Application
EP 86302511 A 19860404

Priority
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• JP 18309885 A 19850822

Abstract (en)
[origin: EP0199482A2] Silicon carbide particles are produced by reacting a gaseous silicon compound or granular silicon with a carbon compound at a high temperature. In the reaction, the amount of free carbon content in the resultant silicon carbide particles can be controlled by monitoring the amount of unsaturated hydrocarbon such as acetylene, as a by-product. Moreover, silicon carbide particles can contain boron dispersed uniformly in the particles by a two step process comprising first reacting a silicon source and a boron source without a carbon source in a first reaction zone, to form boron-containing silicon particles, and second, reacting the resultant particles with a carbon source in a second reaction zone. Further, the above-mentioned monitoring of an unsaturated hydrocarbon by-product allows the obtaining of silicon carbide particles containing no free carbon, and the silicon carbide particles containing boron in the particles but no free carbon may be sintered without the addition of free carbon, to give a dense sinter.

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IPC 8 full level
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CPC (source: EP US)
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Citation (search report)
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• [Y] US 3761576 A 19730925 - GROENING F
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